CLAIMS

What is claimed is:

1. A method of inducing an immune response that includes a $CD8^+$ cytotoxic T lymphocyte (CTL) response to a molecule in an individual, the method comprising administering to the individual the molecule joined to a heat shock protein or the molecule joined to an adenosinetriphosphate (ATP) binding domain of a heat shock protein or a portion thereof.

2. The method of claim 1, wherein the individual has a deficiency of $CD4^+$ T cells.

3. The method of claim 1, wherein the heat shock protein is fused to the molecule.

4. The method of claim 1, wherein the ATP binding domain is fused to the molecule.

5. The method of claim 1, wherein the heat shock protein is covalently bonded or chemically conjugated to the molecule.

6. The method of claim 1, wherein the ATP binding domain, or the portion thereof, is covalently bonded or chemically conjugated to the molecule.

7. The method of claim 1, wherein the molecule is a protein or glycoprotein.

8. The method of claim 1, wherein the molecule is a carbohydrate or lipid.

9. The method of claim 1, wherein the molecule is a bacterial or viral antigen.

10. The method of claim 10, wherein the viral antigen is an antigen of the human immunodeficiency virus.

11. The method of claim 1, wherein the molecule is a parasitic antigen.

12. The method of claim 1, wherein the molecule is a cancer cell-associated antigen.

13. The method of claim 1, wherein the heat shock protein, the ATP binding domain of the heat shock protein, or the portion thereof, is a mycobacterial protein.

14. The method of claim 13, wherein the mycobacterial protein is an *M. leprae, M. bovis,* or *M. tuberculosis* protein.

15. The method of claim 1, wherein the heat shock protein, the ATP binding domain of the heat shock protein, or the portion thereof, is hsp65, hsp70, or hsp90.

16. The method of claim 1, wherein the heat shock protein, the ATP binding domain of the heat shock protein, or the portion thereof, is a mammalian protein.

17. The method of claim 16, wherein the mammalian protein is a human protein.

18. The method of claim 1, wherein the portion of the ATP binding domain consists of about half of the ATP binding domain.

19. The method of claim 1, wherein the portion of the ATP binding domain is a portion of a naturally occurring ATP binding domain in which 1-50% of the amino acid residues have been substituted; 10-40% of the amino acid residues have been substituted; or 10-20% of the amino acid residues have been substituted.

20. The method of claim 19, wherein at least half of the substituted amino acid residues are conservative amino acid substitutions.

21. The method of claim 1, wherein the portion of the ATP binding domain comprises amino acid residues 161-370 of *Mycobacterium tuberculosis* hsp70.

22. The method of claim 2, wherein the individual has an acquired immune deficiency syndrome.

23. A method of inducing a $CD4^+$-independent cytotoxic T lymphocyte response to a molecule in an individual, the method comprising administering to the individual a portion of an ATP binding domain of a heat shock protein joined to the molecule.

24. The method of claim 23, wherein the molecule is a protein, a peptide, a glycoprotein, a carbohydrate, a viral antigen, a fungal antigen, or a parasitic antigen.

25. The method of claim 23, wherein the heat shock protein is an hsp65, hsp70, hsp90, bacterial, mycobacterial, fungal, parasitic, or mammalian heat shock protein.

26. A composition comprising a heat shock protein, or a portion thereof, joined to a heterologous molecule.

27. The composition of claim 26, wherein the portion of the heat shock protein is a portion of an ATP binding domain of a heat shock protein.

28. The composition of claim 26, wherein the heat shock protein, or the portion thereof, is fused to the heterologous molecule.

29. The composition of claim 26, wherein the molecule is a protein, peptide, glycoprotein, carbohydrate, viral antigen, fungal antigen, or parasitic antigen.

30. The composition of claim 26, wherein the heat shock protein is a mycobacterial or mammalian heat shock protein.

31. The composition of claim 30, wherein the mycobacterial heat shock protein is derived from *Mycobacterium tuberculosis, Mycobacterium leprae,* or *Mycobacterium bovis*.

32. The composition of claim 27, wherein the portion of the ATP binding domain consists of about half of the ATP binding domain.

33. The composition of claim 26, wherein the portion of the ATP binding domain is a portion of a naturally occurring ATP binding domain in which 1-50% of the amino acid residues have been substituted; 10-40% of the amino acid residues have been substituted; or 10-20% of the amino acid residues have been substituted.

34. The composition of claim 33, wherein at least half of the substituted amino acid residues are conservative amino acid substitutions.

35. The composition of claim 26, wherein the portion of the ATP binding domain comprises amino acid residues 161-370 of *Mycobacterium tuberculosis* hsp70.